IN THE CLAIMS:

Please amend claims 3, 7-8 and 15 as follows:

1. (Withdrawn) A DNA base sequencing method in which pyrophosphate produced upon synthesizing a strand complementary to a template DNA is converted into ATP, which is reacted with luciferine in the presence of an enzyme such as luciferase, and the complementary strand synthesis is monitored by detecting the resulting chemiluminescence to obtain DNA sequence information, said method being characterized by comprising supplying four kinds of dNTP into the reaction vessel by pressurizing via independent capillaries or narrow grooves which can be in contact with a reaction solution.

2. (Withdrawn) The method according to claim 1, characterized in that each dNTP is supplied in a previously designated order into the reaction vessel by pressurizing each dNTP reservoir in order.

3. (Currently Amended) A system for obtaining DNA sequence information comprising:

at least one reaction vessel;

means for supplying four different kinds of dNTPs into each reaction vessel via independent capillaries or grooves by pressurizing or by a liquid transfer system; and

a detector monitoring synthesis of a strand complementary to a template DNA by detecting chemiluminescence which arises from reaction with ATP and luciferin in the presence of luciferase at the reaction vessel the ATP being converted from pyrophosphate produced from the synthesis which uses the different kinds of dNTPs,

wherein each of the capillaries or the grooves corresponds to one of said different kinds of dNTPs.

4. (Previously Presented) The system according to claim 3, wherein the reaction vessel and the capillaries or the grooves are incorporated into one module.

5. (Previously Presented) The system according to claim 3, wherein the capillaries or the grooves are introduced into a top of the reaction vessel.

6. (Previously Presented) The system according to claim 3, further comprising dNTP reservoirs each containing one of the different kinds of dNTPs and being pressure-

controlled to supply one kind of dNTP contained therein intermittently and repeatedly into the reaction vessel, and an apparatus for controlling electric field between each of the dNTP reservoirs and the reaction vessel.

7. (Currently Amended) The system according to claim 3, wherein ~~each of the capillaries or the grooves corresponds to one of said different kinds of dNTPs, and~~ each of the capillaries or the grooves has an inner diameter of less than 0.2 mm or a cross-section area less than 0.04 mm^2, at an inlet of the reaction vessel.

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8. (Currently Amended) The system according to claim 3, wherein ~~each of the capillaries or the grooves corresponds to one of said different kinds of dNTPs, and~~ each of the capillaries or the grooves has an inner diameter of less than 0.1 mm or a cross-section area less than 0.01 mm^2, at an inlet of the reaction vessel.

9. (Previously Presented) The system according to claim 7, further comprising reagent reservoirs, and reaction solutions each containing one kind of dNTP being introduced from the reagent reservoirs into the reaction vessel via the capillaries or the grooves connected at bottom of the reaction vessel.

10. (Previously Presented) The system according to claim 7, further comprising a supply unit set on top of the reaction vessel for supplying reaction solutions containing the dNTPs to the reaction vessel and a reaction vessel unit including the reaction vessel, the supply unit and the reaction vessel unit are separable, and the reaction solutions are alternatively and repeatedly supplied from the supply unit via the capillaries or the grooves.

11. (Withdrawn) A DNA sequencing method in which pyrophosphate produced upon synthesizing a strand complementary to a template DNA is converted into ATP which is reacted with luciferine in the presence of an enzyme such as luciferase and the complementary strand synthesis is monitored by detecting the resulting chemiluminescence to obtain DNA sequence information,

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said method being characterized in that a primer which sets a starting point of the complementary strand synthesis is immobilized onto a solid surface, pyrophosphate

produced upon synthesizing DNA complementary strand which is hybridized with the primer is converted into ATP which is reacted with ~~luciferine~~ luciferin by luciferase or the like, and the DNA base sequence is monitored by detecting the resulting chemiluminescence.

12. (Withdrawn) The method according to claim 11, characterized in that different kinds of primers which hybridize with the target DNA are immobilized onto different solid surfaces or different cells having sectioned solid surfaces, the designated reaction is carried out using dNTP after hybridization with the target DNA, and chemiluminescence resulting from the complementary strand synthesizing reaction caused by different primers is distinguished to monitor the sequence.

13. (Withdrawn) The method according to claim 11, characterized in that the primers are independently immobilized onto the surface of beads which are spatially separated according to the kind of primer.

14. (Withdrawn) The method according to claim 11, characterized in that the solids with the immobilized primers on their surface are held in cells which are spatially separated according to the kind of primer.

15. (Currently Amended) A DNA analyzing system comprising:

at least one reaction vessel;

means for supplying four different kinds of dNTPs into each reaction vessel via independent capillaries or grooves by pressurizing or by liquid transfer system; and

a detector monitoring synthesis of a strand complementary to a template DNA by detecting chemiluminescence which arises from reaction with ATP and luciferin in the presence of luciferase at the reaction vessel the ATP being converted from pyrophosphate produced from the synthesis which uses the different kinds of dNTPs,

wherein each of the capillaries or the grooves corresponds to one of said different kinds of dNTPs.

16. (Previously Presented) The DNA analyzing system according to claim 15, wherein the detector is capable of distinguishing at least two positions emitting the chemiluminescence.

17. (Previously Presented) The DNA analyzing system according to claim 15, wherein the detector is an area sensor.

18. (Previously Presented) The DNA analyzing system according to claim 15, wherein the reaction vessel is selectively shifted relative to the detecting device.

19. (Cancelled)

20. (Previously Presented) The DNA analyzing system according to claim 15, wherein the reaction solutions are supplied substantially simultaneously and independently to the reaction vessel by an ink-jet method.

21 (Previously Presented) The DNA analyzing system according to claim 18, wherein the detector is a photon multiplier tube or an avalanche photodiode.

22-23. (Cancelled)

24. (Withdrawn)A DNA base sequencing system, characterized by comprising a reaction vessel, reagent reservoirs each holding any one of four kinds of dNTP, means to supply dNTP into the reaction vessel at least partly consisting of a capillary or a narrow groove, pressurizing means to control the supply of the reagents, means to detect chemiluminescence emitted from the reaction vessel, and means to analyze data to obtain DNA sequence information by processing the detected data.

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25. (Withdrawn)The method according to claim 1, wherein the same kind of dNTP is added twice to assure that the reaction proceeds thoroughly.

26. (Withdrawn)The system according to claim 1, wherein the same kind of dNTP is added twice to assure that the reaction proceeds thoroughly.